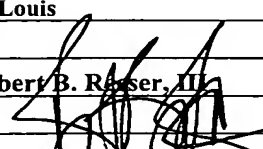
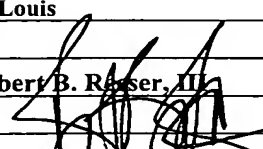
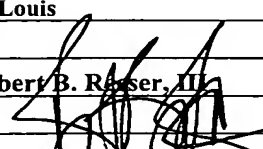
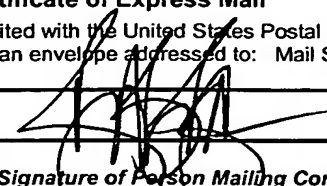


<b>UTILITY PATENT APPLICATION TRANSMITTAL</b>  <small>(Only for new nonprovisional applications under 37 CFR 1.53(b))</small>		<b>Attorney Docket No.</b> 138766															
		<b>First Inventor</b> Edward Durell Benjamin															
		<b>Title</b> Methods and Apparatus for Cooling Gas Turbine Engine Rotor Assemblies															
		<b>Express Mail Label No.</b> EV298648852US															
<b>APPLICATION ELEMENTS</b> <small>See MPEP chapter 600 concerning utility patent application contents.</small>		<b>ADDRESS TO:</b> Mail Stop Patent Application Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450															
1. <input checked="" type="checkbox"/> Fee Transmittal Form (e.g. PTO/SB/17) <small>(Submit an original and a duplicate for fee processing.)</small> 2. <input type="checkbox"/> Applicant claims small entity status. <small>See 37 CFR 1.27.</small> 3. <input checked="" type="checkbox"/> Specification [Total Pages 18] <small>(preferred arrangement set forth below)</small> - Descriptive title of the invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D - Reference to sequence listing, a table, or a computer program listing appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 4. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 6] 5. Declaration & Power of Attorney [Total Pages 3] a. <input checked="" type="checkbox"/> Newly executed (original or copy) b. <input type="checkbox"/> Copy from a prior application (37 CFR 1.63 (d)) <small>(for continuation/divisional with Box 17 completed)</small> i. <input type="checkbox"/> <b>DELETION OF INVENTOR(S)</b> <small>Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).</small> 6. <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76		7. <input type="checkbox"/> CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix) 8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary) a. <input type="checkbox"/> Computer Readable Form (CRF) b. Specification Sequence Listing on: i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or ii. <input type="checkbox"/> paper c. <input type="checkbox"/> Statements verifying identity of above copies <b>ACCOMPANYING APPLICATION PARTS</b> 9. <input checked="" type="checkbox"/> Assignment Papers (cover sheet & document(s)) [6 pages] 10. <input type="checkbox"/> 37 CFR 3.73(b) Statement <input type="checkbox"/> Power of Attorney <small>(when there is an assignee)</small> 11. <input type="checkbox"/> English Translation Document (if applicable) 12. <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Copies of IDS Citations <small>(IDS)/PTO-1449</small> 13. <input type="checkbox"/> Preliminary Amendment 14. <input checked="" type="checkbox"/> Return Postcard (MPEP 503) (Should be specifically itemized) 15. <input type="checkbox"/> Certified Copy of Priority Document(s) <small>(if foreign priority is claimed)</small> 16. <input type="checkbox"/> Non Publication Request under 35 U.S.C. 122 <small>(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.</small> 17. <input checked="" type="checkbox"/> Other: _____															
18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76: <input type="checkbox"/> Continuation <input type="checkbox"/> Divisional <input type="checkbox"/> Continuation-in-part (CIP) of prior application No.: _____ <small>Prior application information: Examiner _____ Group Art Unit: _____</small> <b>For CONTINUATION OR DIVISIONAL APPS only:</b> The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation <u>can only</u> be relied upon when a portion has been inadvertently omitted from the submitted application parts.																	
<b>19. CORRESPONDENCE ADDRESS</b> <input type="checkbox"/> Customer Number or Bar Code Label <span style="margin-left: 100px;"><b>23465</b></span> <span style="margin-left: 100px;">or <input checked="" type="checkbox"/> Correspondence address below</span> <small>(Insert Customer No. or Attach bar code label here)</small>																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2"><b>Name</b> John S. Beulick</td> </tr> <tr> <td colspan="2"><b>Address</b> Armstrong Teasdale LLP</td> </tr> <tr> <td colspan="2"><b>One Metropolitan Square, Suite 2600</b></td> </tr> <tr> <td><b>City</b> St. Louis</td> <td><b>State</b> MO <b>Zip Code</b> 63102</td> </tr> <tr> <td><b>Country</b> US</td> <td><b>Telephone</b> 314.621.5070 <b>Fax</b> 314.621.5065</td> </tr> <tr> <td><b>Name (Print/Type)</b> Robert B. Reaser, III</td> <td><b>Registration No. (Attorney/Agent)</b> 45,548</td> </tr> <tr> <td><b>Signature</b> </td> <td><b>Date</b> October 31, 2003</td> </tr> </table>				<b>Name</b> John S. Beulick		<b>Address</b> Armstrong Teasdale LLP		<b>One Metropolitan Square, Suite 2600</b>		<b>City</b> St. Louis	<b>State</b> MO <b>Zip Code</b> 63102	<b>Country</b> US	<b>Telephone</b> 314.621.5070 <b>Fax</b> 314.621.5065	<b>Name (Print/Type)</b> Robert B. Reaser, III	<b>Registration No. (Attorney/Agent)</b> 45,548	<b>Signature</b> 	<b>Date</b> October 31, 2003
<b>Name</b> John S. Beulick																	
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<b>Name (Print/Type)</b> Robert B. Reaser, III	<b>Registration No. (Attorney/Agent)</b> 45,548																
<b>Signature</b> 	<b>Date</b> October 31, 2003																
<b>Certificate of Express Mail</b> I certify that the documents listed on this form are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. § 1.10 on the date indicated above in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.																	
<b>Robert B. Reaser, III</b> <small>(Printed Name of Person Mailing Correspondence)</small>		 <small>(Signature of Person Mailing Correspondence)</small>															
		<b>October 31, 2003</b> <small>Date</small>															

 15834 U.S. PTO  
 10/699060

10/31/03

# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 1,080.00

## Complete if Known

Application Number  
Filing Date October 31, 2003  
First Named Inventor Edward Durell Benjamin  
Examiner Name  
Art Unit  
Attorney Docket No. 138766

### METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit  
Account  
Number  
Deposit  
Account  
Name

01-2384

Armstrong Teasdale LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

### FEE CALCULATION

#### 1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	770.00
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)			(\$ 770.00

#### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Extra Claims	Fee from below	Fee Paid
35	-20** = 15	X 18	= 270
Independent Claims	-3** =	X	=
Multiple Dependent			

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ 270.00

\*\*or number previously paid, if greater For Reissues, see above

### FEE CALCULATION (continued)

#### 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	40.00
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ 40.00

### SUBMITTED BY

Name (Print/Type) Robert B. Reese, III Registration No. 45,548 Telephone 314/621-5070  
Signature Date October 31, 2003

(Complete if applicable)

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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